



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/059,345	01/31/2002	James William Craig	13894	6008

293 7590 03/02/2005

Ralph A. Dowell of DOWELL & DOWELL P.C.
2111 Eisenhower Ave.
Suite 406
Alexandria, VA 22314

EXAMINER

LU, KUEN S

ART UNIT PAPER NUMBER

2167

DATE MAILED: 03/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/059,345

Applicant(s)

CRAIG ET AL.

Examiner

Kuen S Lu

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendments

1. The Action is responsive to the Applicant's Amendments, filed on October 8, 2004.
2. The Applicant's amendments made to the original claims 1-7, 9-18 and new claims 19-25 is noted. Also noted is that no new matter has been added by the amendments to claims 1-7, 9-18 and 19-25.
3. Concerning the amendments to each of independent **claims 1, 15-17, 19 and 25**, following new issues were raised when:

new limitations

"store (storing) a plurality of possible responses" and "store (storing) a plurality of Boolean expressions, one of said plurality of Boolean expressions associated with each of said plurality of possible responses, each of said plurality of Boolean expressions identifying at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided"

were introduced to claims 1 and 15;

"each of said Boolean expressions identifies at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided"

was amended to limitation of claim 16; and

"natural language query likely be used to search for said particular one of said responses" and "so that said Boolean expression may later be applied to text representing said query to retrieve said particular one of said responses"

were amended to claim 17, and

new claims 19-25 were introduced.

4. As for the Applicant's Remarks on claim rejections, filed on October 8, 2004, has been fully considered by the Examiner, please see discussion in the section ***Response to Arguments***, following the Office Action for Final Rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Regarding claim 17, the phrase "likely to be used to search for" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "likely"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-5 and 12-16 are rejected under 35 U.S.C. 102(e) as anticipated by Coden et al. (U.S. Patent 6,341,277, hereafter "Coden").

As per Claims 1 and 19, Coden teaches the following:

"storing a plurality of possible responses" (See Fig. 2, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's databases are stored with query objects for further connecting to specific database to retrieve query results is equivalent to Applicant's storing a plurality of possible responses);

"storing a plurality of Boolean expressions, one of said plurality of Boolean expressions associated with each of said plurality of possible responses, each of said plurality of Boolean expressions identifying at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's storing a plurality of Boolean expressions, one of said plurality of Boolean expressions associated with each of said plurality of possible responses, each of said plurality of Boolean expressions identifying at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided);

"receiving a text query" (See Fig. 19A and col. 29, lines 23-35 wherein Coden's user query text is received via graphical user interface is equivalent to Applicant's receiving a text query);

"for each of said plurality of possible responses, applying its associated Boolean expression to said received text query thereby determining if the associated Boolean expression is satisfied by said text query" (See Figs. 2, 15, col. 2, lines 52-54, col. 4,

lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects is equivalent to Applicant's for each of said plurality of possible responses, applying its associated Boolean expression to said received text query thereby determining if the associated Boolean expression is satisfied by said text query); and

"presenting at least one of said plurality of possible responses, in response to said determining" (See Figs. 19-19A-19B, col. 29, lines 23-35 and col. 34, lines 8-9 wherein Coden's the result of query elements is returned is equivalent to Applicant's presenting at least one of said plurality of possible responses, in response to said determining).

As per Claim 16, Coden teaches the following:

"a computer readable medium storing data, said data comprising a plurality of responses, and at least one Boolean expressions identifies at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided" (See See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's a computer readable medium storing data, said data comprising a plurality of responses, and at least one Boolean expressions identifies at least one condition to be satisfied by a text query, to which its associated one of said plurality of responses is to be provided);

As per claim 2, Coden teaches “presenting comprises presenting at least plurality one of said plurality of possible responses response having its associated Boolean expression satisfied by said received text query” at (See Figs. 19-2, 19A-19B and col. 29, lines 23-35 wherein Coden’s query object, element 340, the response, is associated with a Boolean expression, Fig. 19B, is satisfied by the received query, a given query Q in Fig. 15-1, is equivalent to Applicant’s presenting comprises presenting at least plurality one of said plurality of possible responses response having its associated Boolean expression satisfied by said received text query).

As per claim 3, Coden teaches “plurality of possible responses each comprises information at least partially responsive to said text query” (See Fig. 19B wherein Coden’s query objects are expressed in Boolean expression responsive to a given query is equivalent to Applicant’s plurality of possible responses each comprises information at least partially responsive to said text query).

As per claim 4, Coden teaches “each of said plurality of Boolean expressions comprises an expression to match a plurality of words within said text query” (See Fig. 19B wherein Coden’s Boolean expression comprises an expression to match a plurality of words is equivalent to Applicant’s each of said plurality of Boolean expressions comprises an expression to match a plurality of words within said text query).

As per claim 5, Coden teaches “plurality of possible responses and said plurality of Boolean expressions are stored in a database” (See Fig. 6, elements 610-615, col. 10, lines 60-65 and col. 11, lines 11-14 wherein Coden’s query objects and associated expression are stored in database is equivalent to Applicant’s plurality of possible responses and said plurality of Boolean expressions are stored in a database).

As per claim 12, Coden teaches “presenting a plurality of additional responses associated with said at least one of said plurality of responses” (See Figs. 15C-1 and 15C-2 wherein Coden’s compound query object 350 is associated with query objects 310 and 320 is equivalent to Applicant’s presenting a plurality of additional responses associated with said at least one of said plurality of responses).

As per claim 13, Coden teaches “at least of said plurality of responses comprises a link to additional information available by way of a computer network in communication with said computer” (See Fig. 1, elements 116, 126 and 128 where response is linked to additional information by way of network is equivalent to Applicant’s at least of said plurality of responses comprises a link to additional information available by way of a computer network in communication with said computer).

As per claim 14, Coden teaches “at least some of said plurality of Boolean expressions comprise an identifier of a compound Boolean expression, to be resolved into a plurality of Boolean terms during said determining” (See Fig. 19B and col. 29,

lines 44-55 wherein Coden's showing a single text entry field contains a complex Boolean query expression multiple component query criteria connected by Boolean operators is equivalent to Applicant's at least some of said plurality of Boolean expressions comprise an identifier of a compound Boolean expression, to be resolved into a plurality of Boolean terms during said determining).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Coden et al. (U.S. Patent 6,341,277, hereafter "Coden"), as applied to claims 1-5 and 12-18 above, and in view of Schabes et al. (U.S. Publication 2002/0123994, hereafter "Schabes").

As per claim 6, Coden does not specifically teach "determining further comprises calculating quality of match metrics for satisfied ones of said plurality of Boolean

expressions, each of said quality of match metrics providing an indicator of a quality of match of a satisfied Boolean expression to said received query”.

However, Schabes teaches “determining further comprises calculating quality of match metrics for satisfied ones of said plurality of Boolean expressions, each of said quality of match metrics providing an indicator of a quality of match of a satisfied Boolean expression to said received query” at Page 3, [0022] 4-12 where the degrees of match between query and matching context are scored to reflect the difference of the match.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine Schabes' teaching with Coden's by calculating the quality of match of sub-expressions to measure how it is satisfied by the received query because both references teach evaluating query, searching query objects and matching received content with query (Coden: col. 2, lines 5-64, Schabes: Page 2, [0022], line 1 – Page 3, [0022], line 12), and, further, both references teach using Boolean expressions for evaluating query objects and matches (Coden: col. 2, lines 5-64, Schabes: Page 2, [0022], line 1 – Page 3, [0022], line 12). The combined reference would have enabled Coden's users to accurately indicate the specific query objects and rank them accordingly such that the query can be performed flexibly with optimization (Schabes: Page 2, [0019]-[0021], Coden: col. 1, lines 61-65).

As per claims 7 and 10, Coden teaches “each of said plurality of Boolean expressions may be expressed as a plurality of logically ORed sub-expressions, and one of said

plurality Boolean expressions is satisfied if one of its sub-expressions is satisfied” at Figs. 19A-19B where a plurality of OR operators to logically OR the sub-expressions and it would have been obvious to the ordinary skilled in the art that a compound ORed Boolean expression is satisfied if one of its two ORed sub-expressions is satisfied.

Schabes further teaches “quality of match metrics are calculated by calculating an indicator of a quality of match for sub-expressions satisfied by said received query” at Page 3, [0022] 4-12 where the degrees of match between query and matching context are scored to reflect the difference of the match.

As per claim 8, Schabes further teaches “presenting is based on a said quality of match metrics” at Fig. 18, elements 514-515 and Page 19, [0198] where output of the match list is ranked.

As per claim 9, Schabes further teaches “calculating degree of match metrics for un-satisfied ones of said plurality of Boolean expressions, each of said degree of match metrics providing an indicator of a degree of match of an un-satisfied ones of said plurality of Boolean expressions to said received text query” at Fig. 18, elements 500-515 and Page 19, [0197]-[0198] where select documents satisfying Boolean expression and matched to set the rankings which is a calculation of match metrics indicating the degree of satisfying the Boolean expression, and on the other hand, the metrics indicates the degree of not satisfying the un-satisfied Boolean expression to the received query.

As per claim 11, Coden teaches “each of said sub-expression comprises a plurality of logically ANDed terms and each of said degree of match metrics is calculated by determining a number of terms in any sub-expression satisfied by said received text query” at Figs. 19A-19B where a plurality of AND operators to logically AND the sub-expressions and each of said degree of match metrics is calculated by determining a number of terms in any sub-expression satisfied by said received text query (Page 19, [0198], lines 5-16.

11. Claims 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Coden et al. (U.S. Patent 6,341,277, hereafter “Coden”) and in view of Cole et al. (U.S. Patent 6,571,239, hereafter “Coden”).

As per claim 17, Coden teaches the following:
“organizing said information into a plurality of responses” (See Fig. 2, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden’s databases are stored with query objects for further connecting to specific database to retrieve query results is equivalent to Applicant’s organizing said information into a plurality of responses);
“formulating a Boolean expression from said at least one of said at least one query, said Boolean expression satisfied by said at least one query” (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden’s compound query contains one or more Boolean expressions of one or more of the query objects stored in

database where Boolean expressions are associated with query objects is equivalent to Applicant's formulating a Boolean expression from said at least one of said at least one query, said Boolean expression satisfied by said at least one query); and "storing said Boolean expression in association with said particular one of said responses, so that said Boolean expression may later be applied to text representing said query to retrieve said particular one of said responses" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's storing said Boolean expression in association with said particular one of said responses, so that said Boolean expression may later be applied to text representing said query to retrieve said particular one of said responses).

As to "for a particular one of said responses formulating at least one natural language query likely be used to search for said particular one of said responses", Coden teaches "for a particular one of said responses formulating at least one" "query likely be used to search for said particular one of said responses" (See Figs. 20A-20B wherein Coden's query objects, Fig. 20B, element 2040-2055, are responsive to the query expression, Fig. 20A, element 2005 is equivalent to Applicant's for a particular one of said responses formulating at least one query likely be used to search for said particular one of said responses).

Coden does not specifically teach the query is a natural language query.

However, Cole teaches formulating query in free text or natural language at col. 3, lines 5-9.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Cole with Coden reference because both references are devoted to improve the process of query, matching query data structure against query text and returning results, and further improve the accuracy of returning results. The combined reference would have allowed Coden's user to enter free text query text, submit the complex query text for analysis, convert into query objects and base on the objects to accurately retrieve query results.

As per claim 18, the combined Cole-Coden reference further teaches the following: "comprising repeating said formulating at least one natural language query" (See cole: col. 3, lines 5-8 and 40-43 wherein Cole's using natural language to enter query and using iterative process to improve query objects is equivalent to Applicant's comprising repeating said formulating at least one natural language query);

"formulating a Boolean expression" (See Coden: col. 2, lines 52-54 wherein Coden's describing a compound query contains one or more Boolean expressions of one or more of the query objects where Boolean expressions are associated with query objects, the responses is equivalent to Applicant's formulating a Boolean expression); and

"storing, for each of said plurality of responses" (See Coden: Fig. 6, elements 610-615 and col. 10, lines 60-65 and col. 11, lines 11-14 wherein Coden's query objects and

associated expression are stored in database is equivalent to Applicant's storing, for each of said plurality of responses).

As per claim 19, Coden teaches the following:

"storing a plurality of possible answers" (See Fig. 2, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's databases are stored with query objects for further connecting to specific database to retrieve query results is equivalent to Applicant's storing a plurality of possible answers);

"storing a plurality of Boolean expressions to be applied to text including a plurality of words, one of said plurality of Boolean expressions associated with each of said plurality of possible answers" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's storing a plurality of Boolean expressions to be applied to text including a plurality of words, one of said plurality of Boolean expressions associated with each of said plurality of possible answers); and

"applying each of said Boolean expressions to said text to assess which of said Boolean expressions are satisfied by said text providing at least some of said plurality of possible answers associated with said satisfied Boolean expressions" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in

database where Boolean expressions are associated with query objects is equivalent to Applicant's applying each of said Boolean expressions to said text to assess which of said Boolean expressions are satisfied by said text providing at least some of said plurality of possible answers associated with said satisfied Boolean expressions).

Coden does not specifically teach "receiving text representing said natural language query from said user".

However, Coden teaches "receiving text representing said natural language query from said user" (See col. 3, lines 5-9 wherein Cole's user formulating query in free text or natural language is equivalent to Applicant's receiving text representing said natural language query from said user).

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Cole with Coden reference because both references are devoted to improve the process of query, matching query data structure against query text and returning results, and further improve the accuracy of returning results. The combined reference would have allowed Coden's user to enter free text query text, submit the complex query text for analysis, convert into query objects and base on the objects to accurately retrieve query results.

As per claim 25, Coden teaches the following:
"organizing said information into a plurality of answers to possible queries" (See Fig. 2, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's databases

are stored with query objects as possible queries for query is equivalent to Applicant's organizing said information into a plurality of answers to possible queries); and "storing said Boolean expression in association with said particular one of said answers" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's storing said Boolean expression in association with said particular one of said answers).

Coden does not specifically teach "for a particular one of said answers postulating at least one natural language query, to which said particular one of said answers is responsive", although Coden teaches for a particular one of said answers postulating at least one query, to which said particular one of said answers is responsive at See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is a responsive to the text.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention was made to combine the teaching of Cole with Coden reference because both references are devoted to improve the process of query, matching query data structure against query text and returning results, and further improve the accuracy of returning results. The combined reference would have allowed Coden's user to enter

free text query text, submit the complex query text for analysis, convert into query objects and base on the objects to accurately retrieve query results.

The combined Cole-Coden reference further teaches “formulating a Boolean expression from said at least one natural language query, said Boolean expression satisfied by said at least one query” (See Coden: See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden’s compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text, and Cole: col. 3, lines 5-9 wherein Cole’s user formulating query in free text or natural language).

As per claim 20, the combined Cole-Coden reference further teaches “wherein each of said Boolean expressions is formed from anticipated natural language queries for an associated answer (See Coden: See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text, and Cole: col. 3, lines 5-9 wherein Cole’s user formulating query in free text or natural language).

As per claim 21, the combined Cole-Coden reference further teaches “wherein said providing comprises presenting all those of said plurality of answers having their associated Boolean expression satisfied by said natural language query (See Coden:

Figs. 19-19A-19B, col. 29, lines 23-35 and col. 34, lines 8-9 wherein the result of query elements is returned , and Cole: col. 3, lines 5-9 wherein Cole's user formulating query in free text or natural language).

As per claim 22, the combined Cole-Coden reference further teaches "wherein each of said plurality of Boolean expressions comprises an expression to match a plurality of words within said natural language query" (See Coden: Figs. 19A-19B where query text matches an Boolean expression, and Cole: col. 3, lines 5-9 wherein Cole's user formulating query in free text or natural language).

As per claim 23, Coden further teaches "wherein said plurality of possible answers, said plurality of Boolean expressions and their associations are stored within a database" (See Figs. 2, 15, col. 2, lines 52-54, col. 4, lines 64-67 and col. 5, lines 1-5 wherein Coden's compound query contains one or more Boolean expressions of one or more of the query objects stored in database where Boolean expressions are associated with query objects satisfied by the query text is equivalent to Applicant's wherein said plurality of possible answers, said plurality of Boolean expressions and their associations are stored within a database).

As per claim 24, Coden further teaches "wherein some of said plurality of possible answers associated with said satisfied Boolean expressions contain a link to

additional information available by way of a computer network in communication with said computer”(See Fig. 19B wherein Coden's Boolean expression comprises an expression to match a plurality of words is equivalent to Applicant's wherein some of said plurality of possible answers associated with said satisfied Boolean expressions contain a link to additional information available by way of a computer network in communication with said computer).

Response to the Arguments

12. The Applicants' arguments filed on October 8, 2004 have been fully considered but they are not persuasive, for the Examiner's response, please see discussion below.

a). At Page 8, concerning claims 1, 15, 16 and 17, the Applicant argued that the Coden reference transforms a query into Boolean expressions, the query objects, for applying to a database to generate query results and the expressions do not match responses.

As to the above argument a), the Examiner agrees with the Applicant's assessment on teachings of Coden reference. However, the Examiner respectfully disagrees that the Coden reference does not teach matching responses of query text. In the Office Action for Final Rejection, the Examiner interprets the transformed query objects equivalent to the responses or answers in the language of the claims and believes the Coden references provides equivalent teachings for the claims via the interpretations.

13. As to dependent claims (2-14), 18 and (20-24), which directly or indirectly depend on claims 1, 17 and 19, respectively, the Examiner applies the above stated arguments for the respective claim upon which they depend.

14. In light of the forgoing arguments, the 35 U.S.C. 102 rejections for claims 1-5 and 12-16, and the 35 U.S.C. 103 rejections for claims 6-11 and 17-25 is hereby sustained.

15. The prior art made of record

- A. U.S. Patent 6,341,277
- B. U.S. Publication 2002/0123994
- C. U.S. Patent 6,571,239

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- D. U.S. Patent 6,363,373
- E. U.S. Patent 6,665,666

Conclusions

16. THIS ACTION IS MADE FINAL.

The Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is 571-272-3574 for faster service.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuen S Lu whose telephone number is 571-272-4114.

The examiner can normally be reached on 8 AM to 5 PM, Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Kuen S. Lu


Patent Examiner

February 28, 2005


Luke Wassum

Primary Examiner

February 28, 2005